International Future Operational Environment Seminar

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Before answering the questions formulated by the seminar organizers, it is important to say that the Brazilian Army's Studies and Strategic Formulation Centre (CEFEEx) foresees not one possible future, but several ones. These "futures" are detectable from the present day by the study of facts and trends observed through time.

The future isn't a digital image that presents a scene in all its details. It is more like a Monet painting, in which the scene is shown only by vaguely delineated objects. However, it's known that one of the principal advantages of prospective studies is the knowledge produced in its construction process.

Next, we will present the answers to the questions about the expected future to the our world, Brazil, South America and to the Brazilian Military. Part of these answers are based on the most probable scenarios, constructed by the Brazilian Army in 2005, with temporal horizon in 2022. The other answers result from monitoring that scenario by the CEFEEx.

The Brazilian Army Prospective Scenarios out to 2022 provide key issues which should be considered to formulate strategies to face the challenges posed by the future. The scenarios were built based on research conducted by the CEFEEx in conjunction with the academic institutes, politicians, and other governmental agencies. The methodology used to build these scenarios was based on a software known as Puma, developed by a Brazilian private company. Puma combines four frameworks: Godet's, Porter's, Schartz's and Grumbach's.

1. WHAT DO YOU CONSIDER TO BE THE MOST IMPORTANT FACTORS THAT WILL SHAPE THE FUTURE OE?

Future will be shaped by factors and driver forces which are detectable since the present time. A driver force is a factor that may cause changes.

1.1 - FACTORS

1.1.1 - POLITICAL FACTORS

Political Realism as characteristic of International Relationship; globalization; consolidation of multipolarity; major influence of environmental issues and non-governmental actors on the decisions of States; prominence of China in the international scenario; increasing number of world instability sources, like conflicts in the Middle East, Asia and Africa, that have brought constant threats to global peace; developed countries are likely to maintain the status quo, by coercive power or international

agreements favorable to their interests; struggle of underdeveloped nations to access new opportunities; terrorism.

1.1.2 - PSYCHOSOCIAL FACTORS

Demographic growth; aging population; migrations; fast increase of knowledge production and its use as power differential.

1. 1.3 - SCIENTIFIC-TECHNOLOGICAL FACTORS

Technological advances (nanotechnology, biotechnology, etc); social tensions growth; access and use of mass destruction weapons by non-state actors.

1. 1.4 - MILITARY FACTORS

Maintenance of the U.S. global military supremacy; major prominence of China in the international scenario.

1. 1.5 - ECONOMICS FACTORS

Expressive growth of energy, food and water demands; major prominence of China in the international scenario to the degree of shifting the economic relations axe to the East; growth of market capitalism inspired by the Chinese model; struggles for strategic resources control (hydrocarbon, water, ores, biodiversity etc), of which Brazil has always been one of the greatest holders.

1.2 - DRIVER FORCES

1.2.1 - THE EMERGENCE OF A GLOBAL MULTIPOLAR SYSTEM

Impact on Brazil

In this new system Brazil will be one of the new global players among Russia, India, China and others.

1.2.2 - ENVIRONMENTAL ISSUES

Impact on Brazil

Brazil has lots of natural resources. And because of our environmental wealth, we understand that Brazil has an important role when it comes to environmental issues. This is especially true if you consider that by around 2025 the environmental issues will have real impact on the relationship between the developed and developing economies.

1.2.3 - GLOBALIZATION

Impact on Brazil

Brazil considers globalization as a great opportunity to boost its economy and to strengthen the regional integration project. Globalization can be an instrument of development, providing that its benefits are divided equally.

1.2.4 - REGIONAL INEQUALITY

Impact on Brazil

Brazil considers that this issue may lead to political instability in the region. The occurrence of a crisis does not contribute to the regional integration.

1.2.5 - TECHNOLOGICAL ADVANCES

Impact on Brazil

Brazil considers that its autonomous international insertion must be based on domain of sensitive technologies.

3. WHAT TRENDS WILL EVOLVE FROM THOSE DRIVERS?

3.1. BRAZIL IS LIKELY TO FACE REACTIONS TO ITS INTERNATIONAL PROMINENCE

This trend comes from the emergence of a global multi-polar system. In this new strategic scenario, Brazil is expected to be a global player among other countries, such as Russia, India and China. The multi-polar nature of today's strategic environment is likely to continue at least through the next twenty years. This situation favors the international insertion of Brazil. But we know that changes in the international system do not occur without reactions.

While developed countries maintain their positions using their power they hold, developing nations have to fight for access to new opportunities.

Although not involved in conflicts, Brazil is inserted in this context of challenges and wants to change its position in the international game, overcoming barriers typical of those not holding the power. Such attitude may make room for the emergence of conflicts arising from reactions of countries competing for space in the international system.

BRAZILIAN ARMY CENTER FOR STRATEGIC STUDIES 3.2. THE INTERNATIONAL INTEREST IN THE AMAZON REGION IS LIKELY TO INCREASE

This trend comes from the great importance that the environmental issues have been taking on over the past few years.

Nowadays, the environmental issues are at the top of the international agenda. Some scholars say that the protection of the environment will be one of the values that will support the new future international order. This is likely to modify the traditional concept of Westphalia Order which focused only on territorial sovereignty. In this new international order the environmental issues may lead to strategies to diminish the national sovereignty of those countries which are accused of not protecting their environmental resources. Until 2025, new political concepts are likely to be formulated so as to justify international pressures due to environmental reasons.

Since Brazil has a great environmental wealth, it is reasonable to think that the international interest in the Amazon region is likely to have increased by that year.

3.3. BRAZIL WILL CONTINUE TO SEEK THE STRENGTHENING OF THE SOUTH AMERICA'S INTEGRATION

This trend emerges from the driver force identified as globalization.

In the context of globalization, the trend is that Brazil will continue to seek the strengthening of the South America's Integration because in a globalized world the countries will get better results when acting within a regional political group.

So, the integration of South America as a whole is the main goal of the Brazilian foreign policy. The aim of this policy is to build a South America that is politically stable, prosperous and united, based on democratic ideas and on social justice.

3.4. THE INCREASE OF SOCIAL AND POLITICAL TENSION BOTH WITHIN AND BETWEEN SOCIETIES MAY LEAD TO CONFLICTS IN SOUTH AMERICA

This trend emerges from the driver force identified as regional inequality.

Economic, social and political inequality of opportunities between individuals and groups will continue to fuel perceptions of injustice among those whose expectations are not met. This will increase tension, which may lead to conflicts, such as disorder, violence and organized crime.

That is why it is important to realize the nature of the conflict in South America. The occurrence of classical conventional military conflicts in the region is possible, but less probable. The situations more likely to generate conflicts that may go beyond the borders are transnational illicit and difficulty for a government to control crisis originated by strong political, social or economic instability.

3.5. BRAZIL WILL CONTINUE TO SEEK TECHNOLOGICAL INDEPENDENCE IN SPACE, CYBERNETIC, AND NUCLEAR STRATEGIC SECTORS

This trend emerges from the driver force identified as Technological Advances. A principle of the Brazilian National Defense Strategy is that Brazil can only achieve national independence and international prominence through mastery of sensitive technologies in the strategic sectors of space, cybernetics, and nuclear affairs. So Brazil has been working to achieve that mastery of space, cybernetics and nuclear technologies. Related to nuclear technologies, Brazil intends to domain the complete fuel cycle, and to build a nuclear submarine. Brazil's recent nuclear cooperation agreement with Argentina creates a strategic partnership that improves regional stability and strengthens regional reliability, apart from reassuring the international community about the nonproliferation commitment. The National Defense Strategy makes it clear that Brazil views self-sufficiency in terms of those sensitive technologies as central to its quest for an autonomous and independent international insertion. We must highlight that Brazil defends the proposition of the irreversibility of international disarmament and nonproliferation commitments. Brazil is part of the Non Proliferation Treaty (NPT), as well as various other disarmament and non-proliferation treaties, involving nuclear, chemical and biological weapons, which it strongly respects. Brazil defends the use of nuclear energy exclusively for pacific purposes, in accordance with the precepts inscribed in the Constitution of 1988, which determines that "all nuclear activity within the National territory will only be allowed for pacific purposes and the approval of National Congress.

4. WHAT STATES OR GROUPS WILL HAVE THE MOST INFLUENCE IN YOUR REGION?

We prefer to answer this question not pointing out a specific country but talking about the Union of South America Nations. Brazil will not fully achieve its strategic goals unless it is part of a union. What is the reason for that? The reason is that the present world is becoming more and more complex and competitive. There is no space for isolation. No country can promote its national objectives in isolation, however large or expressive its economy may be.

The integration of South America does depend on Brazil. This is because Brazil is the largest economy and most industrialized country in the continent, and being a leadership in the region, it would not be

interesting to have a unstable surrounding. The South American integration can only move forward through international joint actions. And the integration depends not only on Brazil but also on its neighbors.

Within the Brazilian strategy, the project for South America is the political, economic and security unity. Although the continent has been preparing for this, the countries have not yet spoken to the world in a unified way in multilateral environments. Neither has Brazil become a geopolitical and economic power to promote the interests of all countries.

5. WHAT CHALLENGES AND OPPORTUNITIES DO YOU FORESEE FOR YOUR COUNTRY / REGION?

5.1. FOR THE REGION

For South America, the regional integration is, at the same time, an opportunity and a challenge as an instrument to its international insertion. An opportunity because regional integration is going to contribute to overcoming economical and social inequalities. A challenge because the overcoming of these inequalities is a long term process that may be jeopardized by eventual political instability.

5.2. FOR THE NATIONAL DEFENSE

From the standpoint of defense, Brazil faces three historical tasks, all of geopolitical character, in order to gain the freedom of action necessary for becoming a global actor.

The first task is helping to complete the occupation and integration of the Amazon region (almost half of the Nation's territory).

In the timeframe foreseen the world population will have increased by two billion people and will be consuming twice the amount of natural resources used today. Brazil cannot allow the strengthening of the concept of relative sovereignty over such

huge amount of resources – the Amazon -, as conceived in the imagination of a considerable part of international public opinion.

The second task relates to the South American continent. Brazilian economy can only "take off" if the arc of instability and social and economic problems around our fuselage is controlled, particularly considering that we have ten neighbors with which we share seventeen thousand kilometers of border. Some large Brazilian cities already show the symptoms indicating that we are on our way to become a

country of immigrants, which may in future contribute negatively to exacerbate our social and economic inequalities.

The third task will be to develop the ability to, within the context of international community initiatives, provide strategic contribution with the consistency capable of ensuring the effective presence and assertion of the nations's interests.

6. WHAT DOES YOUR NATION/REGION NEED TO DO TO MEET AND MITIGATE THOSE CHALLENGES?

6.1. FOR THE REGION

To go on with the efforts for the integration of South America both politically and economically.

6.2. FOR THE NATIONAL DEFENSE

The full implementation of the National Defense Strategy, which addresses the question of what challenges lay ahead for Brazilian Armed Forces in a way it does not specify any particular foe but, instead, it clarifies a set of expected situations for which the nation must be prepared.

7. WHAT PROBLEMS DO YOU FORESSE YOUR MILITARY WILL FACE IN THE FUTURE OPERATIONAL ENVIRONMENT?

The National Defense Strategy (E.N.D.) addresses the question of what challenges lay ahead for Brazilian Armed Forces in a way that it does not specify any particular foe but, instead, it clarifies a set of expected situations for which the nation must be prepared.

In a world which the level of uncertainty is such that there is a permanent demand to reassess the types and possibilities of potential threats, Armed Forces capabilities and design must be oriented by the ability to identify the mais political goals to be achieved with the military, in advance of substantive and legitimate discussions that can take too long to allow timely action.

The adequate inventory of the main strategic needs is instrumental to provide the right tools that will enable the Armed Forces to fulfill their mission as well as to face challenges preveously unforeseen.

It is also relevant to be aware that any future initiatives to guarantee national security will be facilitated by the nation's ability to establish mutual cooperation with reliable partners. These initiatives should be adresssed in a context in which there will be clear social and economic gains associated with it, in order to create the permanent commitment necessary for reliability.

In that context Brazilian Armed Forces should prioritize the improvement of such basic capabilities as:

- monitoring and surveillance of remote areas as well as in specific urban environment (subject to systematic illegal and harmful activities);
- mobility, to rapidly deploy to vulnerable geographic areas; presence, to prevent the ocurrence of parastate structures; joint operations and partnerships to multiply the sinergy of different actors; integrated logistic support in search of the most favorable cost-effectiveness relationship to carry out its tasks; integrated C2I structure to capitalize in the intensive use of technology to outmaneuver opponents. These basic capabilities should be integrated into two specific characteristics relevant to the Brazilian military structure:
 - flexibility, or the capacity to monitor the nations strategic areas, associated with the mobility to allow its rapid presence even in remote locations and the adaptability to face different types of scenarios; and
 - elasticity, or the agility to resize its structure as needed, to mobilize human, material and financial resources, and finally to count with reliable reserves.

To achieve this the Army has outlined its "Strong Arm Strategy", with:

- an Articulation plan, with the Protected Amazon Program, which has the Special Border Platoons (PEF) and the Border Monitoring Integrated System (SISFRON);
- an equipment plan, with the Strategic Mobility Program (for immediate needs) and the COBRA Program, which focus on future systems.

In that way Brazil accepts risks related to its adherence to international treaties such as: Non Proliferation Treaty, Brazil – Argentina mutual control agreement and other arms control agreements (NBC, Land Mines, etc...).

The ways adversaries will most likely adapt are related to exploring our own inconsistencies, mainly in the political arena, where real intentions may be disguised into palatable arguments and in that way providing potential foes the freedom they need freedom to maneuver.

Complimentary to that possibility is the use of vulnerable communities as a shield to perpetrate irregular and illegal activities in a way that turns its detection and the deployment of countermesures something very hard to implement.

Finally the intensive use of technology brings up new standards of potential damage that can be inflicted by any single individual, with the adequate level of support. In no area of human activity that is more iminent than in the case of IT, however, other fields also deserve special attention as energy production and bio hazards.

As a conclusion it is reasonable to assume that the spectrum of potential threats will continue to evolve in a pattern difficult to predict due to the increasing complexity of the modern world,

increased by the information technology, but it is possible to envisage the main aspects of this evolution process, which will allow policies and strategies to be outlined in a way that the capacities to deal with opponents are optimized.

In that sense the Armed Forces must be prepared for permanent shifts on their expected roles, expanding the types and numbers of demands they'll face, probably having to be able to deal with individuals in a more "customized" way, due to the increased lethal capacity that will be attached to a single person. For that matter the ability to work in cooperation and harmony with different partners will be fundamental to success.

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